

**BEST AVAILABLE COPY**

**Claim 10 (Original):** The sidewall dielectric forming method of Claim 9 and further wherein said plurality of exposed material layers of the **ONO-type memory cell stack** includes:

- (b.4) a **second silicon** layer;
- (b.5) a **second silicon oxide** layer;
- (b.6) a **thin dielectric** layer;
- (b.7) wherein the first silicon nitride layer is interposed between the first and second silicon oxide layers; and
- (b.8) wherein the combination of the first and second silicon oxide layers and the first silicon nitride layer is interposed between the first and second silicon layers.

**Claim 11 (Original):** The sidewall dielectric forming method of Claim 10 and further wherein said plurality of exposed material layers of the ONO-type memory cell stack includes:

- (b.9) a **second silicon nitride** layer; disposed above the first silicon layer.

**Claim 12 (Original):** The sidewall dielectric forming method of Claim 1 and further wherein:

- a **ratio of H<sub>outer</sub> to H<sub>inner</sub>**,  $R_H = H_{outer}/H_{inner}$ , determined for the ONO-type memory cell stack after formation of the sidewall dielectric by the dry ISSG process, is about 1.20 or less, where  $H_{inner}$  represents a stack height at a lateral position in the stack that is spaced away from the stack edges and where  $H_{outer}$  represents a stack height at a lateral position near or at one of the stack edges.

**Claim 13 (Original):** The sidewall dielectric forming method of Claim 1 and further wherein lateral sidewall breakdown voltages are substantially uniform along the height of the **ONO-type memory cell stack** after formation of the sidewall dielectric by **the dry ISSG process**.

LAW OFFICES OF  
MacPherson, Kwok, Chen &  
Heid LLP  
1763 Technology Drive  
Suite 226  
San Jose, CA 95110  
Telephone (408) 392-9520  
Fax (408) 392-9262

## BEST AVAILABLE COPY

**Claim 14 (Original):** The sidewall dielectric forming method of Claim 1 and further wherein a ~~larger erase speed is obtained~~ in a memory cell having said ONO-type memory cell stack after formation of the sidewall dielectric by the dry ISSG process, where the larger erase speed is larger than a corresponding erase speed obtained in a corresponding memory cell having an ONO-type memory cell stack with sidewall dielectric formed by an HTO process.

**Claim 15 (Original):** The sidewall dielectric forming method of Claim 1 and further comprising:

- (b) after said dry ISSG process, ~~forming further and supplemental sidewall dielectric by a non-ISSG~~ sidewall dielectric forming process.

**Claim 16 (Withdrawn):** A memory cell ~~having an ONO-type memory cell stack~~ where at least one sidewall of the ONO-type memory cell stack includes a plurality of material layers respectively composed of different materials, the memory cell further comprising:

- (a) a sidewall-coating dielectric whose fabrication was at least initially started ~~by subjecting~~ at least one otherwise exposed and multi-layered sidewall of the ONO-type memory cell stack ~~to a dry ISSG process~~ (In-Situ Steam Generation).

**Claim 17 (Withdrawn):** The memory cell of Claim 16 wherein ~~the dry ISSG process is used to initiate the thermal reaction~~ comprises:

- (a.1) generating a sufficient amount of atomic oxygen near said at least one otherwise exposed sidewall of the ONO-type memory cell stack so as to substantially oxidize exposed sidewall regions of those of the different materials of the ONO-type memory cell stack that are not substantially oxidized prior to said subjecting of the at least one otherwise exposed sidewall to said dry ISSG process.

LAW OFFICES OF  
MacPherson, Kwok, Chen &  
Bed LLP  
1762 Technology Drive  
Suite 225  
San Jose, CA 95110  
Telephone (408) 392-9320  
Fax (408) 392-9282

**BEST AVAILABLE COPY**

**Claim 18 (Withdrawn):** The memory cell of Claim 16 ~~wherein the memory cell~~  
~~process used to form the memory cell~~ comprises:

- (a.1) flowing molecular oxygen ( $O_2$ ) towards the stack; and
- (a.2) flowing molecular hydrogen ( $H_2$ ) towards the stack, where the volumetric flow ratio of the  $H_2$  to the  $O_2$  is less than about 0.2.

**Claim 19 (Withdrawn):** A memory cell having an ONO-type memory cell stack isolated by sidewall dielectric where at least one dielectric-isolated sidewall of the ONO-type memory cell stack includes a plurality of material layers respectively composed of different materials, the memory cell being further characterized by :

- (a) a height variation ratio,  $R_H = H_{outer}/H_{inner}$ , determined for the ONO-type memory cell stack after formation of the sidewall dielectric, where the height variation ratio,  $R_H$  is about 1.20 or less, where  $H_{inner}$  represents a stack height at a lateral position in the stack that is spaced away from the stack edges and where  $H_{outer}$  represents a stack height at a lateral position near or at one of the stack edges.

**Claim 20 (Withdrawn):** A memory cell having an ONO-type memory cell stack isolated by sidewall dielectric where at least one dielectric-isolated sidewall of the ONO-type memory cell stack includes a plurality of material layers respectively composed of different materials, the memory cell being further characterized by :

- (a) lateral sidewall breakdown voltages that are substantially uniform along the height of the ONO-type memory cell stack.

\*\*\*

LAW OFFICES OF  
 MacPherson, Kwok, Chen &  
 Field LLP  
 1762 Technology Drive  
 Suite 226  
 San Jose, CA 95110  
 Telephone (408) 392-0920  
 Fax (408) 392-0921